



GSE2FS-N1161

G2

PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	part no.
GSE2FS-N1161	1119049

Other models and accessories → www.sick.com/G2

Detailed technical data

Features

Functional principle	Through-beam photoelectric sensor
Dimensions (W x H x D)	4.5 mm x 21 mm x 11 mm
Housing design (light emission)	Rectangular
Minimum detectable object (MDO)	1.8 mm
Sensing range max.	0 mm ... 1,300 mm
Sensing range	0 mm ... 1,000 mm
Type of light	Visible red light
Light source	PinPoint LED ¹⁾
Light spot size (distance)	Ø 100 mm (1,000 mm)
Wave length	660 nm
Adjustment	None

¹⁾ Average service life: 100,000 h at T_J = +25 °C.

Mechanics/electronics

Supply voltage U_B	10 V DC ... 30 V DC
Ripple	< 5 V _{pp} ¹⁾
Current consumption	20 mA ²⁾

¹⁾ May not fall below or exceed U_V tolerances.

²⁾ Without load.

³⁾ Signal transit time with resistive load.

⁴⁾ With light/dark ratio 1:1.

⁵⁾ Do not bend below 0 °C.

⁶⁾ A = V_S connections reverse-polarity protected.

⁷⁾ C = interference suppression.

⁸⁾ D = outputs overcurrent and short-circuit protected.

Switching output	NPN
Switching mode	Light switching
Output current I_{\max}	$\leq 50 \text{ mA}$
Response time	$< 0.625 \text{ ms}^{3)}$
Switching frequency	$800 \text{ Hz}^{4)}$
Connection type	Cable, 3-wire, 2 m ⁵⁾
Cable material	Plastic, PVC
Cable diameter	$\varnothing 2.3 \text{ mm}$
Circuit protection	A ⁶⁾ C ⁷⁾ D ⁸⁾
Weight	40 g
Housing material	Plastic, VISTAL®
Optics material	Plastic, MABS
Enclosure rating	IP67
Ambient operating temperature	$-20 \text{ °C} \dots +50 \text{ °C}$
Ambient temperature, storage	$-40 \text{ °C} \dots +70 \text{ °C}$
UL File No.	NRKH.E348498 & NRKH7.E348498
Repeatability (T_a not constant)	0.1 mm

1) May not fall below or exceed U_V tolerances.

2) Without load.

3) Signal transit time with resistive load.

4) With light/dark ratio 1:1.

5) Do not bend below 0 °C .

6) A = V_S connections reverse-polarity protected.

7) C = interference suppression.

8) D = outputs overcurrent and short-circuit protected.

Certificates

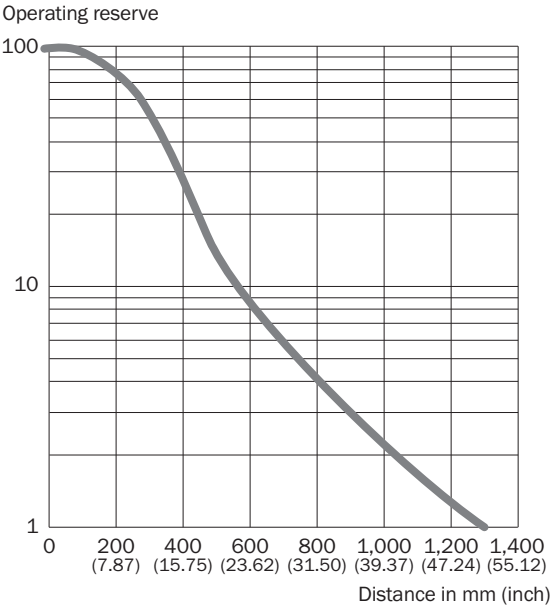
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China-RoHS	✓
cRUus certificate	✓

Classifications

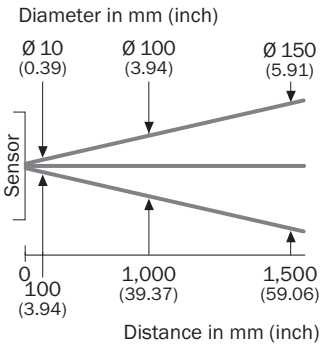
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ECLASS 8.0	27270901
ECLASS 8.1	27270901

ECLASS 9.0	27270901
ECLASS 10.0	27270901
ECLASS 11.0	27270901
ECLASS 12.0	27270901
ETIM 5.0	EC002716
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ETIM 8.0	EC002716
UNSPSC 16.0901	39121528

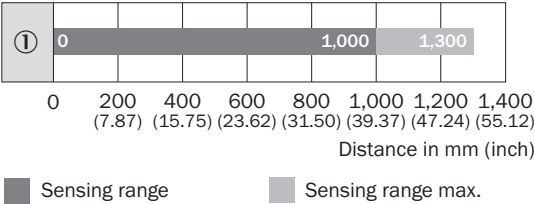
Characteristic curve



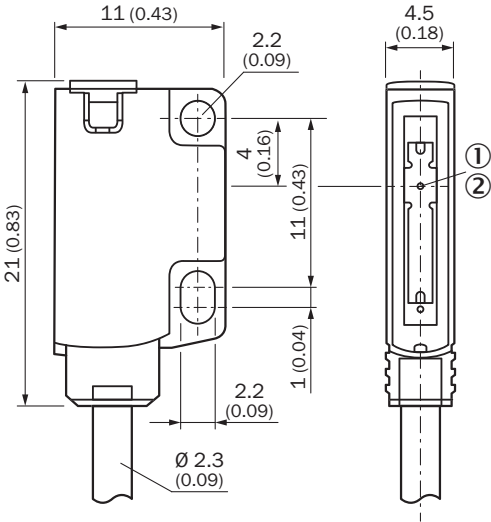
Light spot size



Sensing range diagram




Dimensional drawing




Dimensions in mm (inch)
① optical axis, receiver
② optical axis, sender

Recommended accessories

Other models and accessories → www.sick.com/G2

	Brief description	Type	part no.
Mounting systems			
	<ul style="list-style-type: none">Description: Mounting plate for direct mounting, from the rear, on wall or machine, not adjustable. 10 Piece ,Black ,Plastic, VISTAL®. Suitable for GSE2FS onlyPacking unit: 10 pieces	BEF-G2F-SIDE-SPACER-M2	2107264

	Brief description	Type	part no.
connectors and cables			
	<ul style="list-style-type: none">• Connection type head A: Male connector, M8, 3-pin, straight, A-coded• Description: Unshielded• Connection systems: Screw-type terminals• Permitted cross-section: 0.14 mm² ... 0.5 mm²	STE-0803-G	6037322

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com